

**Amendments To The Claims****1-7.(cancelled)**

**8.(previously presented) A process for manufacturing a BiMOS microcircuit, comprising:**

forming a buried layer of a first semiconductor material;  
forming a gate oxide for at least one MOS transistor;  
forming a poly-Si layer on the gate oxide;  
forming a base of a second semiconductor material;  
forming a source and a drain for the MOS transistor of a third semiconductor material; and  
forming an emitter of a group III/VI semiconductor on the base, the group III/VI semiconductor selected from the group consisting of GaS, GaSe, GaTe, InS, InSe, InTe, and TlS.

**9.(original) The process of claim 8, further comprising:**

after forming the buried layer, isolating the buried layer into pockets.

**10.(original) The process of claim 8, further comprising forming a deep N+ collector.**

**11.(original) The process of claim 8, further comprising:**  
utilizing part of the buried layer as a collector; and  
forming contacts to the base, emitter, collector, source, drain, and poly-Si layer on the gate oxide.

**12.(original) The process of claim 8, further comprising forming wells of the second semiconductor material in the buried layer.**

**13-15.(cancelled)**

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16.(previously presented) A process for manufacturing a heterojunction bipolar transistor (HBT), comprising:

forming a collector of a first semiconductor;  
forming a base of a second semiconductor; and  
forming an emitter of a group III/VI semiconductor selected from the group consisting of GaS, GaSe, GaTe, InS, InSe, InTe, and TlS.

17-21.(cancelled)

22.(previously presented) A process for manufacturing a transistor, comprising:

forming a base;  
forming a collector;  
forming an emitter of a group III/VI semiconductor selected from the group consisting of GaS, GaSe, GaTe, InS, InSe, InTe, and TlS; and  
forming an emitter contact coupled to the emitter.

23.(previously presented) The process of Claim 22, wherein forming a base comprises forming a base of a p-type semiconductor material and forming a collector comprises forming a collector of an n-type semiconductor material.

24.(previously presented) The process of Claim 22, wherein forming a base comprises forming a base of an n-type semiconductor and forming a collector comprises forming a collector of a p-type semiconductor and further comprising doping the group III/VI semiconductor to behave as a p-type semiconductor.